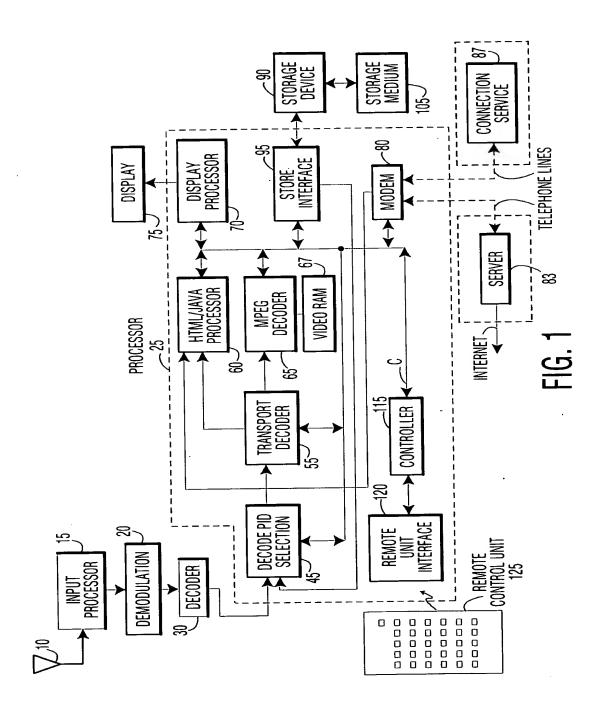RCA 90192
C. ANEJA ET AL.
SHEET 1 OF 8
METHOD AND SYSTEM FOR USING SINGLE OSD PIXMAP ACROSS
MULTIPLE VIDEO RASTER SIZES BY CHAINING OSD HEADERS
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FIG. 1

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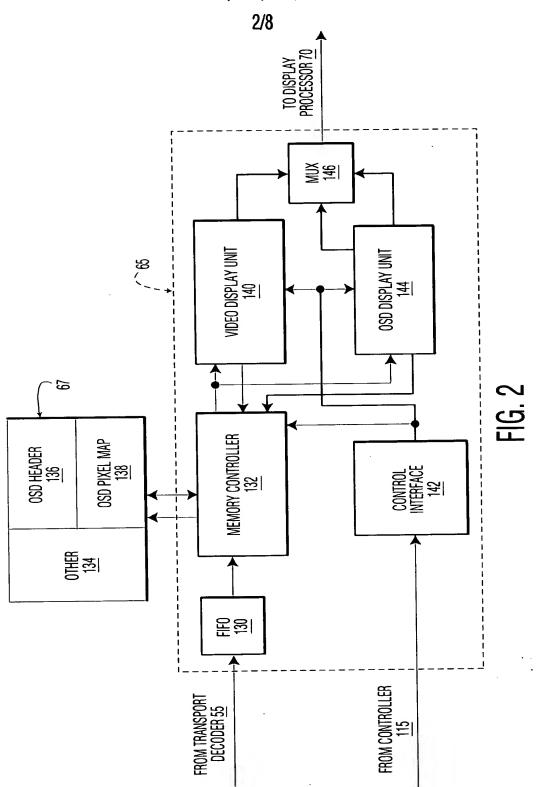Vincent E. Duffy   Telephone (317) 587-4019

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FIG. 2

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FIG. 3

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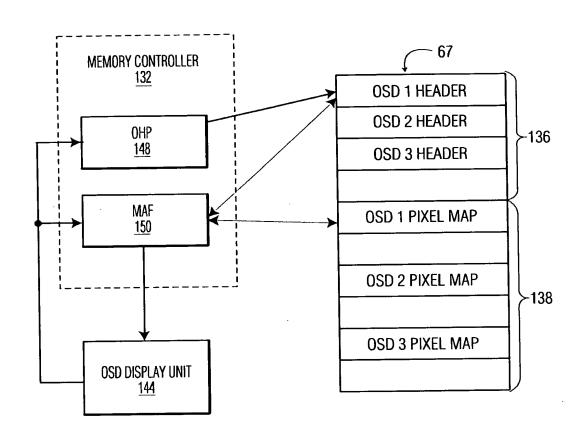Vincent E. Duffy   Telephone (317) 587-4019

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```
         ┌──────────────────────────────┐
         │   RECEIVE OSD DISPLAY REQUEST │
         │             152              │
         └──────────────────────────────┘                    ── 151
                        │
                        ▼
         ┌──────────────────────────────┐
         │ TRANSMIT MEMORY ACCESS REQUEST TO │
         │         OHP REGISTER         │
         │             154              │
         └──────────────────────────────┘
                        │
                        ▼
         ┌──────────────────────────────┐
         │ WRITE OSD HEADER CORRESPONDING TO │
         │ DESIRED OSD PIXEL MAP INTO MAF │
         │          REGISTER            │
         │             156              │
         └──────────────────────────────┘
                        │
                        ▼
         ┌──────────────────────────────┐
         │ ANALYZE OSD HEADER TO DETERMINE │
         │ LOCATION OF OSD PIXEL MAP IN PIXEL │
         │         MAP BLOCK            │
         │             158              │
         └──────────────────────────────┘
                        │
                        ▼
              ◇ DETERMINE IF DISPLAY ◇         ┌──────────────────────────┐
              CHARACTERISTICS IN OSD HEADER    │ PASS OSD HEADER AND      │
              COMPLY WITH DISPLAY       YES    │ CORRESPONDING OSD PIXEL  │
              CHARACTERISTICS OF OSD  ───────▶ │ MAP TO DISPLAY PROCESSOR │
              DISPLAY REQUEST                  │          162             │
                    160                        └──────────────────────────┘
                        │ NO
                        ▼
         ┌──────────────────────────────┐
         │ REWRITE DISPLAY CHARACTERISTICS IN │
         │         OSD HEADER          │
         │             164              │
         └──────────────────────────────┘
                        │
                        ▼
         ┌──────────────────────────────┐
         │ PASS OSD HEADER AND          │
         │ CORRESPONDING OSD PIXEL MAP TO │
         │      DISPLAY PROCESSOR       │
         │             166              │
         └──────────────────────────────┘
```
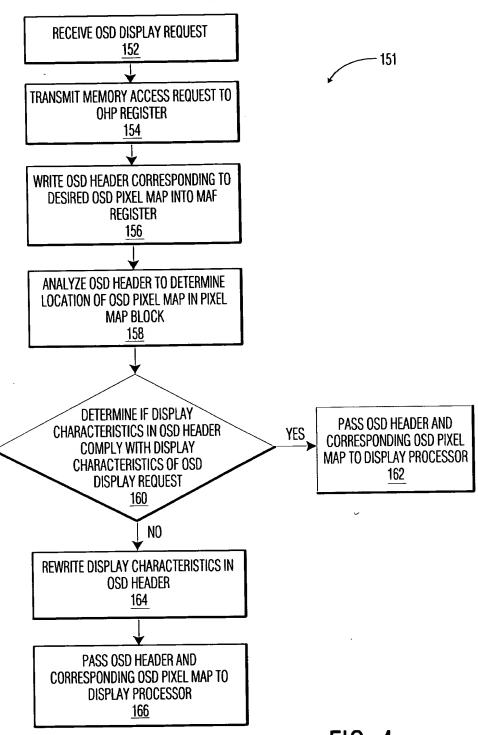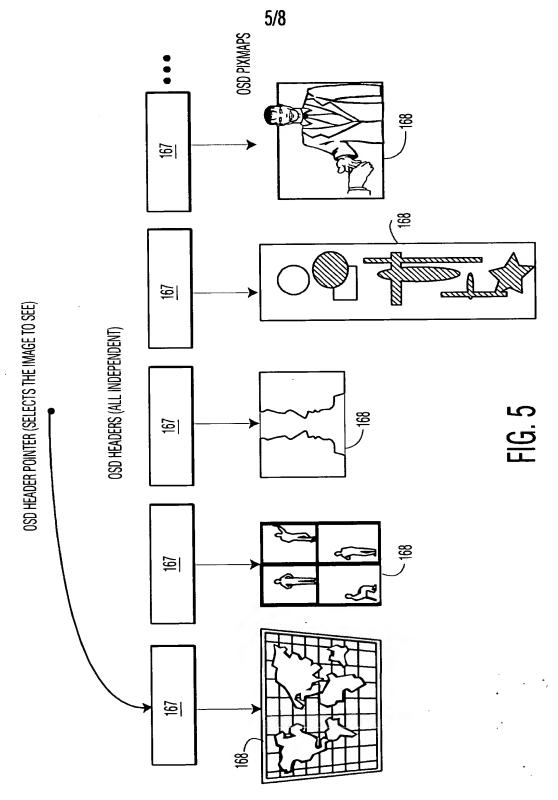
FIG. 4

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OSD PIXMAPS

167

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167

168

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167

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167

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OSD HEADER POINTER (SELECTS THE IMAGE TO SEE)

OSD HEADERS (ALL INDEPENDENT)

FIG. 5

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MULTIPLE VIDEO RASTER SIZES BY CHAINING OSD HEADERS
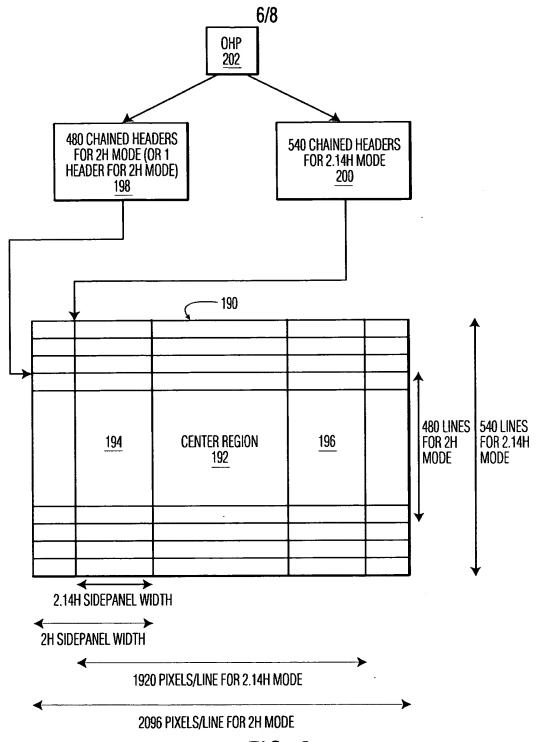Vincent E. Duffy   Telephone (317) 587-4019

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```
                        ┌──────────┐
                        │   OHP    │
                        │   202    │
                        └──────────┘
```

┌─────────────────────────┐   ┌─────────────────────────┐
│ 480 CHAINED HEADERS   │   │ 540 CHAINED HEADERS   │
│ FOR 2H MODE (OR 1   │   │ FOR 2.14H MODE   │
│ HEADER FOR 2H MODE)   │   │ 200   │
│ 198   │   │   │
└─────────────────────────┘   └─────────────────────────┘

— 190

	194	CENTER REGION 192	196	

480 LINES FOR 2H MODE

540 LINES FOR 2.14H MODE

2.14H SIDEPANEL WIDTH

2H SIDEPANEL WIDTH

1920 PIXELS/LINE FOR 2.14H MODE

2096 PIXELS/LINE FOR 2H MODE

FIG. 6

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MULTIPLE VIDEO RASTER SIZES BY CHAINING OSD HEADERS
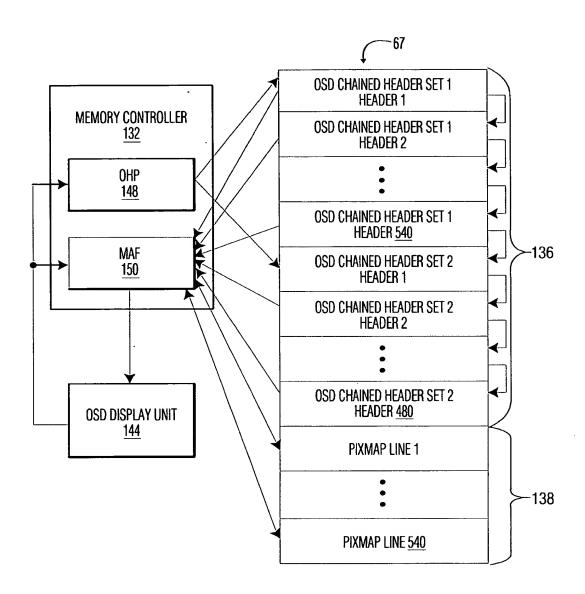Vincent E. Duffy   Telephone (317) 587-4019

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FIG. 7

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RECEIVE AN OSD DISPLAY REQUEST
172

DETERMINE (OR DETECT) DISPLAYING MODE
174

TRANSMIT A HEADER POINTER TO OHP
REGISTER TO SELECT A HEADER SET
176

RETRIEVE A HEADER (OR A SUBSEQUENT
HEADER) FROM THE SELECTED HEADER SET
178

DETERMINE THE LOCATION OF A PIXEL LINE
THAT IS ASSOCIATED WITH THE RETRIEVED
HEADER
180

PASS THE RETRIEVED HEADER AND THE
ASSOCIATED PIXEL LINE TO DISPLAY PROCESSOR
182

DISPLAY THE ASSOCIATED PIXEL LINE
184

IS THERE ANY
SUBSEQUENT HEADER
THAT IS CHAINED TO THE
CURRENT HEADER?
186

YES

NO

END

FIG. 8